

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-12 are pending in the application, with claim 1 being the independent claim.

Based on the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Rejections under 35 U.S.C. § 103

Claims 1-4 and 6-12 are rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent 6,404,758 to Wang in view of U.S. Patent 6,097,762 to Suzuki *et al.* ("Suzuki"). Applicants respectfully traverse.

Independent claim 1 recites, among other features, "**simultaneously** down-converting and performing a matched filtering/correlating operation on a portion of an initially received carrier signal."

In paragraph 2 of the Office Action, the Examiner alleges that the above recited step of claim 1 is taught by Wang. In particular, the Examiner refers to RF circuit 115 and FSC matched filter 130 as performing the above recited step. Applicants respectfully disagree for the following reasons.

First, as clearly illustrated in FIG. 2 of Wang, RF circuit 115 and FSC matched filter 130 are two separate components which operate **sequentially**. In other words, FSC matched filter 130 operates on the output of RF circuit 115. Accordingly, RF circuit 115 and FSC matched 130 cannot be said to operate **simultaneously** to perform the step of

“simultaneously down-converting and performing a matched filtering/correlating operation” as recited in claim 1.

Further, since FSC matched filter 130 operates on the output of RF circuit 115. FSC matched filter 130 does not operate on a **carrier signal**, but on a baseband signal. Indeed, Wang discloses that “RF circuit 115 filters the signal 105 and converts the received radio frequency signal to a baseband signal.” Wang, col. 6, lines 26-29. As such, FSC matched filter 130 cannot be said to perform “a matched filtering/correlating operation . . . on an initially received **carrier signal**” as recited in claim 1.

Suzuki does not overcome the deficiencies of Wang as discussed above. Accordingly, for at least the reasons above, independent claim 1 is patentable over Wang and Suzuki. Reconsideration and withdrawal of the rejection of claim 1 is respectfully requested.

Claims 2-4 and 6-12 depend from claim 1. Accordingly, for at least the reasons discussed above and further in view of their own patentable features, claims 2-4 and 6-12 are patentable over Wang and Suzuki. For example, claim 2 recites, among other features, “wherein step (1) comprises the step of convolving an approximate half cycle of the carrier signal with a representation of itself.” In paragraph 2 of the Office Action, the Examiner alleges that this feature of claim 2 is taught in col. 11, lines 1-13 of Wang. Applicants respectfully disagree as col. 11, lines 1-13 of Wang describe the output of the circuit sliding integrator 150 of Wang which is unrelated to either RF circuit 115 or FSC matched filter 130, which the Examiner alleges to perform step (1) of claim 1. In addition, nothing in col. 11, lines 1-13 teaches or suggest performing the step of

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Sorrells *et al.*
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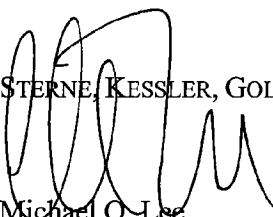
“convolving an approximate half cycle of the carrier signal with a representation of itself.” Reconsideration and withdrawal of the rejection of claims 2-4 and 6-12 is respectfully requested.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,


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